

AMENDEMENTS TO THE SPECIFICATION

Paragraph No. 0076, 0077, 0079-0081, 0092, 0097, 0102-0105, 0107, 0108 and 0117 of the published application US 2004/0073612 A1 are amended as follows, where added text is bolded and underlined and deleted text is stricken through:

[0076] In order to further clarify the aforementioned description about the present invention, it can be defined that the terminals directly connected to an internet broadcasting server 10 are primary connection terminals 110, the ones connected to the primary connection terminals secondary connection terminals 120, the ones connected to the N-th connection terminals Nth connection terminals 130. At this time, N is an integer, the same or greater than 2. As shown in FIG. 2, each of the terminals 110, 120, 130 includes: a broadcasting receiving unit ~~113~~114 for receiving data transmitted from terminals that relay an internet broadcasting server 100 or broadcasting data; a data processing/displaying unit ~~114~~116 for processing and outputting data received by the broadcasting receiving unit ~~113~~114; and a broadcasting relaying unit 112 for getting connected with the internet broadcasting server 100 through TCP/IP or UDP protocol to relay broadcasting data by receiving broadcasting data and transmitting the received data to other neighboring terminals.

[0077] In order to carry out an internet broadcasting at the network thus constructed, above all, it is necessary to install a software program adequate for the broadcasting relaying unit 112, broadcasting receiving unit ~~113~~114 and broadcasting data processing and displaying unit ~~114~~116 of the terminal 110.

[0079] The broadcasting receiving unit ~~113~~114 receives the broadcasting data transmitted by the internet broadcasting server or the broadcasting data relaying terminals and transmits the data to the data processing and displaying unit ~~114~~116.

[0080] The data processing and displaying unit ~~114~~116 performs a function of displaying moving pictures on the screen of a terminal or processing audio data by receiving broadcasting data from the broadcasting receiving unit ~~113~~114, so as to process and display the data on the screen or other instruments.

[0081] When the procedure of receiving or relaying the internet broadcasting data with the secondary connection terminal 120 is considered, the broadcasting receiving unit

113+4 receives and transmits broadcasting data to the data processing and displaying unit 114+6 when the broadcasting data start to be received.

[0092] The data transmitted from the broadcasting relaying unit 112 is further transmitted to the broadcasting receiving unit of other terminals connected with an identical LAN as well as the broadcasting receiving unit 113+4 installed in the terminal. Also, it can be transmitted to terminals of other regions connected via a router (router m).

[0097] First of all, an internet broadcasting system using dispersion IP multicasting of the present invention, as shown in FIG. 4, includes: an internet broadcasting server 10 for broadcasting multimedia data like moving pictures and audio data; terminals -50, -40-47 connected with the internet broadcasting server 10 through TCP/IP or UDP protocol to receive broadcasting data, display it for users to view and relay it to other adjacent terminals; and a plurality of IP multicasting routers (router m, 20-30) having an IP multicasting function of connecting the server and the plurality of terminals on the internet.

[0102] In the network thus constructed, a terminal to carry out an internet broadcasting operation using the present invention is similar to the terminal 110 described above with reference to FIG. 2. The terminal includes a broadcasting unit 112, a broadcasting receiving unit 113+4 and a broadcasting data processing and displaying unit 114+6. Functions of respective units are also similar except one fact that IP multicasting protocol is used in the aforementioned network. Such functional units can be accomplished by software that should be received from an Internet broadcasting server for installation before or at the same time as reception of broadcasting data.

[0103] The broadcasting relaying unit 112 is programmed for a broadcasting relaying function of receiving broadcasting data transmitted from the internet broadcasting server 10, converting into IP multicasting data and transmitting the IP multicasting data to other neighboring terminals after getting connected with the internet broadcasting server 10 through TCP/IP or UDP. The broadcasting and receiving unit 113+4 should be programmed for a function of receiving IP multicasting data transmitted by an adjacent broadcasting and relaying terminal and transmitting it to the data processing and displaying unit 114+6.

[0104] Furthermore, the data processing and displaying unit ~~114~~146 is part of displaying moving pictures and processing audio data on the monitor of a terminal, to receive broadcasting data from the broadcasting receiving unit ~~113~~114, process and display the data on the monitor or other devices.

[0105] The procedure of receiving or relaying the internet broadcasting with a terminal 50 will be as follows.

[0107] The data transmitted from the broadcasting relaying unit 112 is further transmitted to the broadcasting receiving unit ~~113~~114 installed in the terminal and he broadcasting receiving units of other terminals connected to at least an identical LAN and to the terminals of other regions connected through routers router m) supporting IP multicasting data.

[0108] Description will be made on the aforementioned procedure with reference to FIG. ~~4~~1. Region A does not require any other relaying function as it can directly receive IP multicasting data from the internet broadcasting server 10. On the contrary, region B or C needs an additional relaying function.

[0117] In order to achieve a multicasting data dispersing and processing environment, a CAST 365 server is moved along with a media server of a CP to install an internet broadcasting program (CAST 365 program) of an internet broadcasting server shown in FIG. 3 and a multicast box servers (52, 54) in FIG. 5, in which a multicasting signal relaying program is mounted in the NAS (53). Furthermore, a relaying function performing program ~~shown in FIG. 3~~ is installed at the terminal of a connector (xDSL connector or modem connector) who gets connected with the CP for communication with the CAST 365 program. Therefore, it becomes possible to secure an increase in the number of simultaneous multicasting connectors.